

## Fighter-Interceptor • German Luftwaffe • World War II

In the summer of 1934, Professor Willy Messerschmitt, director of design with a German aircraft manufacturing firm in Augsburg, was requested by his government to develop and build a more effective fighter plane for the Luftwaffe. It was decided to make the smallest possible airframe to accommodate the most powerful aircraft engine available at the time, the 695 h.p. Rolls-Royce Kestrel V. In September 1935, the first prototype successfully completed initial flight trials. Continued modifications resulted in the Me 109B's and C's which were credited with reestablishing German aviation prestige by winning contests at the International Flying Meet held at Zurich in 1937, and by outfighting aircraft supplied by Russia to the Republican forces during the then raging Spanish Civil War.

During early developmental stages the '109 appeared to have many shortcomings. Despite these and wide-spread rumors of serious structural failures the new fighter eventually became a highly successful combat plane and earned the distinction of being produced in larger numbers than any other combat aircraft of WW II. By prevailing standards it handled well, possessed excellent low-speed control, and was superior in climb-rate and ceiling. After meeting increased armament and power requirements the Me 109E became the first truly mass-produced series. By the outbreak of World War II in 1939, the "E" was delivered into first-line service with operational fighter groups of the Luftwaffe. The Me 109E, had a 32 ft.  $4/_2$ in. wingspan, was powered by an 1100 h.p. Daimler-Benz, DB 601A engine, giving it a top speed of 354 m.p.h. at 12,300 feet and an absolute ceiling of 37,500 feet. Generally its armament consisted of two wing-mounted 20 mm cannon and two cowl-mounted 7.9 mm machine guns, however, many models had an additional 20 mm cannon firing through the propeller hub.

Although "Me 109" was its popular name, official documents and handbooks recorded the fighter as "Bf 109". Of all tactical aircraft produced in Germany during WW II, with possible exception of the Focke-Wulf Fw 190, the Me 109 was most "respected" by its major antagonists, the pilots of Spitfires, Mustangs, Hurricanes and Thunderbolts.

Your Monogram Me 109E Kit was developed from authentic drawings and photographs of the actual aircraft.

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## BEFORE YOU BEGIN ASSEMBLY . . .

Study the exploded drawing, assembly photos and instructions to become familiar with all parts of the model. Your Monogram Me 109E has retractable landing gear therefore it is important that the assembly instructions are followed carefully and that cement is applied only where indicated. Movable parts must not be cemented.

Each "tree" of plastic parts is molded with identifying numbers appearing either on the parts or on tabs alongside the corresponding parts. In the assembly instructions, the identifying numbers are preceded by the letter G or B, to indicate whether the part can be found on the GREEN or on the BLACK parts "tree". This method makes it easy for you to locate parts during model assembly.

Do not detach parts from the trees until you are ready to use them. After cutting or breaking off the required part, trim away any excess bits of plastic. Use a small sharp knife, such as a modeling knife, available at your hobby counter. Check the fit of each part before cementing it in place.

Keep in mind, the importance of not rushing the assembly of your model and avoid the use of excessive amounts of cement. All plastic cements contain solvents which dissolve plastic in order to form a solid weld between the cemented parts. Too much cement can soften and distort the plastic, spoiling your model's appearance. When applying cement to small or hardto-reach areas, use the tip of a toothpick instead of using the cement tube nozzle.

If you plan to paint your model, refer to the instructions "Finishing the Me 109E", for helpful hints on painting.

3 Slip one B4 wheel over axle of B5 right landing gear strut. Flare the end of axle with a heated knife blade. Any dull knife will do, but if you prefer to use a modeling knife, proceed as follows: Remove the blade from the grippers and reinsert it, pointed end inside as shown. Then heat the blunt end of the blade over a small flame and carefully press it flatly against protruding axle end. Only a slight flare is needed to keep wheel on axle. Repeat this procedure to install other wheel to **B6** left gear strut. Wheels should spin freely after axle ends have been properly flared. Install **B1** armor plate to **G2** right fuselage half by cementing tabs on armor plate into "D" shaped holes in side of fuselage under cockpit opening. Make sure armor plate is straight when viewed from above.





RUBBER BANDS

Z apply comment spanning, for and fasten it to G3 left fuselage half. Lineup pins fit into holes in right fuselage half. Wrap rubber bands around fuselage for a tight joint, as shown in small photo at left.

4 IMPORTANT! Apply a tiny amount of vegetable oil to two knobs on the end of each landing strut as indicated in photo. Next, place (do not cement) struts into position inside **G7** bottom wing with wheels facing up **exactly** as shown in photo. Pivot arms on end of struts fit between five small posts with the smaller pin on pivot arm fitting between two forward posts. Make certain pivot arms remain in place while performing the next assembly step.







**9** Install **G16** rudder by applying cement to two slotted holes in trailing edge of vertical fin and fitting tabs on leading edge of rudder into the holes, as shown.

10 Cement B17 propeller to B18 spinner back. Insert (do not cement) B19 propeller shaft into B20 bearing as shown in left photo. Next, apply a small drop of cement to end of propeller shaft and insert shaft into hole in spinner. Now apply cement to tabs on bearing and attach unit to cowl face. Notice that tabs on bearing are off center to fit the off center slots in cowl face. Make sure tabs are lined up correctly with slots.



11 Cut instrument panel "D" from decal sheet and cement it with paper backing attached into cockpit. If you wish to paint your pilot (B21), refer to "Painting" instructions on last page for color suggestions. Allow paint to dry overnight before cementing pilot into cockpit. Tab on pilot's back fits into slot in bulkhead. Apply cement sparingly along bottom edges of clear canopy and attach to fuselage. Break off round tab from end of B22 antenna mast. Apply cement to bottom of mast and fit it into slot in canopy. Beveled tab on mast fits down onto slanted bulkhead.

12 Turn model over on its back (make sure cement holding antenna is dry) and apply cement to round hole in underside of left wing. Attach **B23** pitot tube in position shown in photo.

> TO COMPLETE YOUR MODEL TURN TO LAST PAGE FOR PAINTING AND DECAL INSTRUCTIONS



## OPERATING THE LANDING GEAR

SLOTS IN

COWL FACE

TABS

BEARING

PROPELLER

ASSEMBLY

Your Me 109E model features an easily operated landing gear. Remember, the moving parts should be free of cement and should be handled carefully. To extend the landing gear, insert a pencil point under the wheel and swing the gear down and toward the fuselage, as shown in photo. Either the "wheels-down", or the retracted position are held securely by a friction-lock at the top of the strut, in the wing. Your model can easily be displayed "airborne" or "taxing".





## FINISHING the Me 109E

**PAINTING.** If you wish to paint your model it is best to paint most of the parts before cementing them. Large outside surfaces such as bottom and top of wing, fuselage, and stabilizer, may be painted after assembly, **before** applying decals. Only **enamel** or **paint for plastics** should be used. A small pointed brush is best for painting small parts. Larger areas are best covered with a soft brush about <sup>1</sup>/<sub>4</sub> in. wide. Allow time for paint to dry thoroughly before handling parts. Scrape paint away from areas which will be cemented because cement will not hold to paint.

German camouflage varied greatly with the area of operation to which aircraft were assigned. Light grays were used in winter, and dark greens for summer. Two summer camouflage schemes used, were as follows: (1) Dark green upper surfaces with sky-blue under surfaces, black propeller blades and a black or white spinner. (2) Dark green upper surfaces with a mottled overspray of gray and sky-blue undersurfaces. Suggestions for painting details are given below.

LIGHT GRAY — Landing struts, tailwheel strut and fork and pitot tube.

GREEN - Canopy framework.

PILOT — Tan suit, flesh face and hands, brown helmet, black earphones and shoes, silver goggles and olive drab parachute and straps.

BLACK — Tailwheel and tire, machine guns in fuselage troughs and inside of exhausts. Main wheels remain black.



**APPLYING DECALS.** When applying decals, refer to the photos which show locations of the various decal panels on the aircraft. Notice that these are coded with letters A, B, C, etc. to correspond with markings on the decal sheet. Work with one subject at a time. For a neat job, cut closely around subject outlines with scissors or small sharp knife. When cutting around decal panel "B", be careful to include the small white triangle in upper left of the cross insignia.

Dip decal in water for a few moments until it slides easily on the paper backing. Slide the decal partly off the paper backing and place decal in the correct location on the model. Hold decal in position with one finger and slide paper backing out from underneath, as shown in photo above. Decals can be shifted slightly on the model. When it is in correct position, press out trapped air bubbles and blot with a soft rag.



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